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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/770,706	01/26/2001	Nadim Abdo	MS158524.1	6799

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CLEVELAND, OH 44114

EXAMINER

WALLACE, SCOTT A

ART UNIT	PAPER NUMBER
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2671

DATE MAILED: 05/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/770,706

Applicant(s)

ABDO, NADIM

Examiner

Scott Wallace

Art Unit

2671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5,8,9,11,12 and 15-19 and 21 is/are rejected.
- 7) ☒ Claim(s) 6,7,10,13,14 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 5, 8-9, 11-12, 18-19, 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Tada, U.S. Patent No. 5,736,991.

3. As per claims 1 and 11, Tada discloses a system for rendering an image of an object having a curved surface (column 3 lines 39-40), comprising: a determiner adapted to determine M number of attributes relating to rendering the image, M being an integer (column 3 lines 1-23); a first processor (input processor, fig 3) adapted to pre-compute N number of attributes relating to rendering the image, N being an integer less than or equal to M, and the N number of attributes being pre-computable (column 3 lines 1-23); and a second processor (deforming processor, fig 3) adapted to compute the M number of attributes (column 3 lines 1-23).

4. As per claims 5 and 12, Tada discloses wherein the determiner determines at least one of an ambient lighting component, a diffuse lighting component, a specular lighting component, an intensity, a pole vector, an equator vector, a latitude, a longitude, a color and a texture (column 9 lines 45-60).

5. As per claims 8 and 18, Tada discloses wherein the object is a lit sphere (fig 5).

6. As per claims 9 and 19, Tada discloses wherein the object is a textured sphere (fig 5).

7. As per claim 21, Tada discloses a computer readable medium having computer executable instructions for performing the method of claim 11 (column 1 lines 5-10).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 2 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tada.

10. As per claims 2 and 15, Tada does not specifically disclose the N number of attributes having characteristics associated with the symmetrical nature of objects having a curved surface. However, Tada discloses a sphere as the curved surface which has inherent symmetry. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the associated symmetry because this would reduce the computation load.

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 3-4 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tada in view of Takaizawa et al., U.S. Patent No. 5,572,635.

13. As per claims 3 and 16, Tada does not disclose the M number of attributes including one or more light sources. This is disclosed in Takaizawa et al in fig 5. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use one or more light sources as in Takaizawa with the system of Tada because the object has to be illuminated from something to be seen.

14. As per claims 4 and 17, Tada does not disclose the M number of attributes including one or more viewing positions. This is disclosed in Takaizawa in fig 13. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use one or more viewing positions as in Takaizawa with the system of Tada because the viewing is determined by the position of camera viewing the object, therefore is always at least one viewing position.

***Allowable Subject Matter***

15. Claims 6-7, 10, 13-14, 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Scott Wallace** whose telephone number is **703-605-5163**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Mark Zimmerman**, can be reached at 703-305-9798.

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**Art Unit: 2671**

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**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

**(703) 872-9314 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA,  
Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be  
directed to the Technology Center 2600 Customer Service Office whose telephone number is  
(703) 306-0377.



MARK ZIMMERMAN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600